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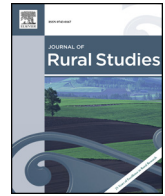
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Challenges of community engagement in a rural area: The impact of flood protection and policy

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1. Introduction

The Intergovernmental Panel on Climate Change (IPCC) has outlined the risk of increased flooding and coastal inundation from rising sea levels if current global warming continues (IPCC, 2018). Extreme rainfall and flooding has increased by more than 50% in a decade, and 400% since 1980 (EASAC, 2018). Water will become one of the most pressing societal challenges in the coming decades as flooding becomes more widespread and occurs more frequently (Vidal, 2015). In the UK, the scale and severity of weather-related events has been described as ‘unprecedented in recent history’ (Ingirige and Russell, 2015:5). Flooding has become the most significant short-term climate change-related threat to the UK (Defra, 2012). It has long been known that flooding in the UK is unpredictable and inevitable, and the risk of it cannot be completely avoided (Fleming, 2002).

UK policies to empower communities in the fight against flooding cohere around the concept that communities must be resilient and capable of responding to local challenges themselves (Conservative Party, 2015). This self-reliance is indicative of a neoliberal political agenda to roll back state support and place the governance of local services and developments in the hands of local community members (Corry, 2014). In environmental politics, the local has become the policy locus (Mihaylov and Perkins, 2015). Communities are tasked

with preparing for climate change through planning collective local responses to weather-related emergencies such as flooding (Defra, 2012).

An increasing number of disasters, including flooding, as well as socio-economic crises destabilizing affected communities¹ have resulted in the concept of resilience gaining currency in discourses of regional development, disaster risk reduction, and climate change adaptation (Imperiale and Vanclay, 2016). Lessons from the past, such as previous local floods, can inform the development of new community-generated solutions facilitating security and resilience (Hegney et al., 2008). For this to happen, community members need to be able to influence aspects of local context and decision-making, and to share power with governing bodies. Yet, although promoted in UK policies, enacting localism and community empowerment is complex and national policies are frequently poorly translated to the local level (Skerratt and Steiner, 2013). Discussing narratives on climate change adaptation and community resilience, Kythreotis and Bristow (2017) talk about the ‘resilience trap’ – which favours short-term actions over well-considered long-term solutions that fully engage with planning and the range of implications of mitigation and adaptation. For instance, and as presented in this paper, implementation of flood defence plans can affect small business activities and, hence, impact wider community resilience over the longer-term.

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¹ Within this paper, “community” is a located grouping describing community of place. Geographic scope of the communities in the study was limited to a rural town Dumfries and, as presented in the methodology section, its Whitesands area.

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While communities are encouraged to develop resilience in relation to flood-related events, the significance of rural local small businesses, their ability to cope with flood-related events and their post-flooding recovery has been largely overlooked in literature and policy debates (Ingirige and Russell, 2015; Wedawatta et al., 2014). Yet, small businesses represent agents of change and adaptation, contributing to the social, economic and environmental resilience of many communities. Their maintenance is recognised as important to local economies (Sarkar and Wingreen, 2013). For instance, in rural communities, businesses (including small food and drinks producers, craft-related businesses, shops, pubs, restaurants and other retailers) provide essential local services, create employment (Eachus, 2014), and play a key role in rural community development (for more information please see: Steiner and Atterton, 2014, 2015). The spatial spillover effects of their temporary closure post-flooding, and subsequent impact upon communities they serve, remains largely unexplored (Lam et al., 2012; Xiao and Van Zandt, 2012).

Against this background of climate change, policy context and the role of small businesses in rural communities, this paper considers conflicting narratives and the enacted polarisation of communities and local government in the media as policies, local agendas and community needs influence the development of planned flood mitigation measures. In particular, our study aims to explore how rural community members and their local authorities polarise when decisions are made about local flood protection measures. Drawing on data from a longitudinal case study and using the narratives of those in the frontline of the worst flood impacts, the Whitesands small business owners, we analyse the ‘public face’ of the conflict between a rural community and their elected local authority. The power and influence of the local authority on how national policy was interpreted and implemented locally is examined. Further exploration of the role of consultations and responses at both the local authority and the Scottish national government levels is also presented.

2. Resilience

Resilience is a multidisciplinary (and therefore complex and highly contested) concept frequently used to describe the ability to absorb social, environmental and economic disturbances while retaining the same functions (Folke, 2006). Flooding can impact on a community's resilience through generating economic, socio-cultural, psychological, political or institutional impacts. To avoid negative consequences of flooding, communities must adapt in response to risk, and this requires them to be proactive (Steiner and Markantoni, 2014) if they are to thrive in an environment characterised by change, uncertainty, unpredictability and surprise (Magis, 2010). Community resilience not only embodies maintaining current characteristics or the ability to ‘bounce-back’, it also encapsulates systemic changes made to increase capacity to foresee, plan and mitigate the consequences of place-related challenges like flooding (Markantoni et al., 2018, 2019). An integral part of the community resilience concept is the ability to learn from past negative events to prepare for similar situations in the future through being active and proactive, flexible and adaptable, and shaping, adjusting and enhancing their circumstances. To anticipate risk, limit impact, and facilitate bounce-back through survival, adaptability and evolution (Eachus, 2014), community agents need to be capable of influencing their surroundings. Any decisions affecting this adaptability and change should not be considered in silos (Steiner and Farmer, 2017). Instead, in order to avoid the ‘resilience trap’ (Kythreotis and Bristow, 2017), community stakeholders should carefully consider wider and long-term impacts of decisions. For community resilience to be built effectively, it is important to involve relevant people and institutions, including local small businesses (Begg et al., 2015).

Few academic studies have examined small businesses' vulnerability to climate change crises, their resilience and ability to recover after

climate-related disaster like flooding (Battisti and Deakins, 2017). Similarly, there is little published evidence of the effectiveness of policies or interventions to build wider community resilience against flooding (Twigger-Ross et al., 2014). It is nonetheless clear that, if the wider community and infrastructure are not resilient to extreme weather events, businesses may be adversely impacted even if they are not directly affected by a disaster (Ingirige and Wedawatta, 2014).

The shift in political discourse towards individual self-responsibility has simultaneously been matched with a shift in management of flood risk to local level governance (Begg et al., 2015). This has occurred without a corresponding transfer of budget or proper understanding of heterogeneous communities' existing capabilities (Preston et al., 2014). Individual or community resilience approaches emphasising adaption and proactive localism require a level of capacity, commitment and an adequate level of resources (Steiner and Markantoni, 2014). The idea of developing resilient communities rests on assumptions that citizens are well-informed, empowered in decision-making, and possess adequate financial means (White and O'Hare, 2014). However, communities are not always sufficiently resourced or empowered and hence are challenged when creating their own trajectories for local development.

Rural community resilience can be impacted upon by regional institutions including local government (Eachus, 2014). Therefore, in decision-making, local authorities should consult an appropriate range of stakeholders to avoid flawed decisions damaging wider community resilience (Werrity et al., 2007). Where an event like flooding is repeatedly endured, it becomes increasingly important that agencies provide leadership in hazard mitigation to maintain community resilience. Loss of faith in leadership has been found to exacerbate the emotional, physical and economic losses suffered in communities (Tobin et al., 2011), while loss of trust and confidence in the local authority has been directly linked to reduced community cooperation with local governments and future community-driven mitigation efforts (Howgate and Kenyon, 2009).

Aligning with the notion of rural community resilience, Lowe et al. (2019) draw attention to the essential role of place-focused knowledge generated through community experience and experimentation. Ideally, the latter should be merged with extra-local scientific, professional and regulatory knowledge that must be adapted to specific contexts. In Scotland, however, local authorities frequently make sole decisions about infrastructural programmes mitigating the effects of climate change (Flood and Schechtman, 2014) and this can result in tension between local authorities and the public (Conrad et al., 2011). Governing agencies can portray themselves as comprising of experts qualified to guide local decision-making and this can stimulate this tension when external expert advice is prioritised over local knowledge (Johansen and Chandler, 2015). Less-informed communities have been shown to trust governing agencies to manage local risks more than knowledgeable communities (Siegrist and Cvetkovich, 2000). Where communities disagree with governing agencies' decisions, the public expect democracy to be enacted (Conrad et al., 2011). As flood events become more frequent and widespread, public knowledge will increase and hence trust in governance may erode in future.

2.1. Competing resilience policies?

The concept of the resilient community has been endorsed and supported by governing institutions internationally (e.g. Cabinet Office, 2007; World Bank, 2008; OECD, 2011, 2013), leading to the politicisation of ‘resilience’. A burgeoning climate change literature debates the impact of governance on the resilience of individuals, communities and infrastructure (MacMahon et al., 2015; White and O'Hare, 2014). In the UK, policies supporting community resilience i.e. community engagement, empowerment, asset ownership and capacity-building, also require inclusion, self-reliance and sustainability of communities (Steiner and Farmer, 2017). However, previous studies highlight that the implementation of resilience and empowerment policies is

problematic in practice (Skerratt and Steiner, 2013). Tensions exist between maintaining ‘the current’, and evolving a ‘new normal’, community equilibrium (White and O’Hare, 2014). Narratives of enabling a bottom-up response to market failure may produce public governing bodies that, although retaining executive powers, are reluctant to engage in solving local challenges, potentially having a negative effect on community resilience (Apostolopoulos et al., 2018).

The equilibrist UK Civil Contingencies Act (2004) (CCA) legislates duties and responsibilities for public organisations, including requiring local authorities to provide continuity advice to local businesses, in a paternalist approach to protection and recovery from flooding and other environmental events. The CCA focuses on response to emergencies, particularly the protection of life, public safety, and maintaining or preserving infrastructural resilience. In contrast, the evolutionist Climate Change Adaption Act (2009) (CCAA), created by the Scottish Government and the Scottish local authority Single Outcome Agreement Ambitions (SOAA), promotes raising awareness and building resilience through adaption to the new norm. White and O’Hare’s (2014) *resilience paradox* suggests these policies are counter-productive as the CCA is reactive, protectionist and hence resistant to the discourse of building resilience through adaption and transformation, while devolved Scottish and local policies embrace adaptation (i.e. CCAA and SOAA). Policy inconsistency has been evidenced globally in previous climate-related rural crisis research (e.g. Paveglio et al., 2015; Imperiale and Vanclay, 2016; MacMahon et al., 2015).

2.2. Challenges in developing community-led policies

The process of planning flood protection infrastructure in the UK is subject to public consultation. However, there is little guidance on how these consultations should be conducted and the use of consultation results is not mandatory. Lack of clarity about public influence in decisions about flood protection schemes has raised the question of how realistic participatory decision-making is (Conrad et al., 2011). Counter-intuitively, including a broad range of stakeholders can undermine the quality of proposed plans, and rather than ensuring that there is complete representation of the public, planners may focus on ‘incorporating specific groups that will most likely boost the quality of the adopted plan’ (Brody, 2003:415). The planning department in one rural Danish municipality selected participants for a participatory process based on those who were already actively involved in a process, a situation described as ‘hiding deliberate exclusion behind the rhetoric of inclusion’ (Johansen and Chandler, 2015:17). Conversely, public consultation engagement processes, such as open public meetings, can be divisive and create polarity and antagonism, generating schisms between citizens and local authority staff (Innes and Booher, 2004).

Further confounding the public consultation process can be ‘procedural injustice’ (Preston et al., 2014), specifically an over-representation of educated, older, affluent and articulate males (Brackertz and Meredyth, 2009). Rarely do local authorities explain what, if any, influence public consultations will have over decision-making processes (Simpson and Clifton, 2014). Hence, while public consultations might present as inclusive, constructivist and empowering, evidence suggests that authorities use them as a positivist framework which demands linear decision-making (Boxelaar et al., 2006), rendering it simply ‘political choreography’ with little or no real prospect of influencing the result (Cheeseman and Smith, 2001).

Whilst UK governments have emphasised local citizen participation in flood management planning (Defra, 2005), the practice of local community consultation varies across different regions. In Cumbria, England, policymakers actively supported small businesses and local communities in the development of flood protection measures (Ingirige and Wedawatta, 2014). Conversely, in the Scottish Borders, a local authority did not engage with the community until local citizens demanded they do so (Howgate and Kenyon, 2009), and research suggests such community concerns are frequently not adequately dealt with by

local governing agencies nor their questions satisfactorily answered (Apostolopoulos et al., 2018; Paveglio et al., 2015; Ingirige and Wedawatta, 2014). Howgate and Kenyon (2009:337–339) highlight ‘the importance of issues such as openness, communication, engagement and ownership in projects’, noting that communities can be in ‘opposition from a sense of not being consulted’. Hence, development of community-led policies is highly challenging and there is lack of consistency across different UK regions.

3. Polarisation, agency and planning

In Ghana, Amoako (2016) demonstrated that the state was complicit in enabling development of flood risk areas through their land management policies, yet were absent from the informal growth that occurs as a consequence. Similar tensions between the involvement of the state in managing local communities are reported from environmental conflicts elsewhere. For example, Lucas and Warman (2018) demonstrated in Australia that environmental conflicts generate polarised social constructs within members of a community who then form groups with others in their community who share their views. The resulting formation of a polarised group creates a shared social identity (Turner et al., 1987) based on shared opinions and world view which reinforces individual member’s polarised opinions, creating ‘ruts’ or divisive opposing narratives that then persistent across time and result in enduring fractures amongst community groups (Lucas and Warman, 2018). The state itself becomes a polarised group in the conflict as it continues to maintain its politicised agenda.

Polarisation is further facilitated by the use of ‘experts’ associated with the governing institutions. Such experts are involved before plans become public and hence are familiar with the discourse of planning processes and infrastructure projects from inception. This expertise has been found to be used to dismiss criticisms of planned projects, regardless of their validity (Conrad et al., 2011). Johnson and Priest (2008) suggest that, in UK flood management policy, such expert discourse erodes local knowledge and places emphasis on the power of expert opinion, reducing community agency and capacity to act. This rejects the notion of knowledge democratisation that moves away from one-way knowledge transfer to a more equal collaboration between scientific, professional and non-professional sources of expertise introducing networked, rather than top-down, development model (for more detailed discussion see Lowe et al., 2019). Lack of willingness to use the expertise local people have about the places in which they live and work creates the ideal habitat for the development of polarised ‘ruts’. This can be further worsened through the use of fixed and pre-determined statements by governing institutions to present their proposal to local communities as the singularly viable option, and therefore as beyond dispute (Johansen and Chandler, 2015).

Further division can emerge from discourses themselves, as local agencies communicate their plans in a technical language that excludes the community. This language might be found within the undermining of community-generated alternative plans which the ‘experts’ dismiss as unviable. This goes against McCall and Dunn’s (2012) suggestion that ‘good governance’ of participatory spatial planning consists of legitimacy, accountability, respect, competence and equity. Instead, exclusions and dismissals can leave community members feeling they have not been adequately consulted. Trust can be built in planning decisions by using local knowledge and incorporating local expertise (Howgate and Kenyon, 2009) and is essential in the management of the expert/non-expert interface as a process of knowledge exchange (Lowe et al., 2019). However, even this local knowledge discourse can be used to undermine the objectives of others by dichotomising between ‘locals’ and ‘incomers’ or outsiders (Nimegeer and Farmer, 2016). The governance of planning flood protection measures is therefore complex, and multiple opportunities for polarisation emerge throughout negotiations between planners and the communities whose interests they nominally represent.

A disconnect between environmental policy and social issues policy has also been recognised for almost a decade in the UK, where policy effectiveness is still unmonitored (Preston et al., 2014). Flood management policy in the UK focused largely on land drainage before a shift to preventative engineering solutions in the 1980's and 1990's. Prior to 1998, there was a widespread misconception amongst the public and local authorities that flooding could be entirely controlled and prevented by human beings. The shift from flood prevention to flood risk management further enabled focus on community resilience and individuals' responsibility through emphasising flood warnings and increased awareness as flood risk management tools (Johnson and Priest, 2008).

4. Methodology

4.1. Study context

This study focuses on Dumfries, a rural market town in the south of Scotland (population size approximately 31,000 residents). Annual flood events have been recorded since 2003 (SEPA, 2015) in the Whitesands, a well-established central retail area by the River Nith populated by a number of small businesses. The flooding is most often a result of high tides pushing upstream which collide with river-borne downstream storm surges from heavy rainfall in the hills, inundating the streets. Heavy rain also overfills the town's drainage system causing internal plumbing to back-up within business premises near the river, increasing flood water depth inside. Whitesands' flooding normally recedes within hours of its peak at high tide. The businesses then clean up and dry out, with the most resilient businesses resuming trading within 24 h of the flood. When a flood alert is issued, the police close the streets in the surrounding area to traffic and access to the businesses becomes limited.

The Whitesands Project has been proposed as the solution to this chronic inundation. Developed by the local authority, the project aims to create flood protection whilst simultaneously regenerating this neglected part of Dumfries town centre. Promoted as a positive development, this regeneration has drawn opposition locally, particularly from Whitesands' small business owners who fear the loss of passing trade if it is implemented. The new flood protection measure will force the closure of Whitesands car parking and also block views of the river currently enjoyed by those businesses.

4.2. The Whitesands Project - development timeline

The development of the Project began with a hydraulic modelling study in 2011 (see Fig. 1) (Dumfries and Galloway Council, 2016a). The remit for a design was "...to increase the vitality on the town centre as a whole and to address particular flooding issues associated with the River Nith" (Dumfries and Galloway Council, 2016a). The first public consultation was a *charrette*, an intensive collaborative public planning event, held in 2012 (Dumfries and Galloway Council, 2012). A technical report recommending the construction of a *bund* (an earthen wall) was produced in 2013 (Mouchel, 2013). This design showed a grass-covered earth pyramid which reached almost 2 m high in places and required the closure of the large riverside car-parking area which served the shops.

In August 2014, an eight-week public consultation was allegedly conducted by the local authority (Dumfries and Galloway Council, 2016a) but the results were not publicly available. An open community meeting was facilitated by the local authority in December 2014. Dumfries and Galloway Council documentation reference a public consultation occurring in early 2015, but again no documentary evidence of this could be found. At the end of 2015, a public display was held in the town centre for three days and a local authority-generated questionnaire was made available to the public for feedback (Dumfries and Galloway Council, 2015). Following this consultation, the local

authority amended the plan and reduced the height of the earthen bund to 1.4 m, the remaining height finished by a glass wall. The width of the bund still requires removal of current parking and the river view, however, so the current design remains disputed locally, as evidenced on a publicly available Facebook page.

After severe flooding in December 2015, the local authority reconsidered the flood protection measures' capacity to cope. The exhibition ran again in Dumfries town centre. In December 2016 the local authority agreed to continue with the plan, pending more information on costings (Dumfries and Galloway Council, 2016b). Following local authority elections in 2017, the newly-elected leadership deferred a final decision from subcommittee to a full local authority council meeting (Dumfries and Galloway Council, 2017). The new coalition then agreed to refer the proposal to the Scottish Government, and a full public enquiry into the Whitesands Project was scheduled to begin on 6 November 2018.

4.3. Research methods

This study aimed to examine through longitudinal media narratives how communities and local authorities publicly polarised and exercised power in local decision-making about flood infrastructure development. More than 100 publicly-available data sources were collected from a range of media (i.e. local, Scottish and UK national newspapers; social and audio-visual media) and supplemented by grey literature (i.e. local authority council meeting notes; planning documentation; and reports). This data was collected for 7 years (2011–2018). A diversity of sources was sought to control potential bias in media agenda (Atkinson et al., 2014). Whilst elected local authority representatives' views were repeatedly represented in the national media, the opposing community groups were less frequently represented. To counter this, six semi-structured interviews were conducted with Whitesands' business owners in 2014, representing approximately a third of traders affected. Business owners were reluctant to participate in interviews, citing the controversy and potential community backlash as reasons for non-participation. Staff employed in local authority departments involved in the Whitesands Project were also invited to participate in this study but declined.

4.4. Media and grey literature

The media, including social media, has become increasingly important in planning consultation processes because of its ability to connect people and increase engagement in the public realm (Fredericks and Foth, 2013).

The researchers used bimonthly Google searches during the study period (2011–2018) to collect articles, comments and videos about the Whitesands Project from local, Scottish, and UK newspapers, including the Dumfries Courier, the Dumfries and Galloway Standard, the Scotsman, the Herald Scotland, the Daily Record, the Daily Express, the Mirror, the Guardian, and the Daily Mail. Articles and videos were also collated from the BBC, Sky News and STV Borders television channels. Social media mentions on Twitter from professional accounts (e.g. ScotGov; SEPA; the BBC; political figures) were monitored during the study, as were professional Facebook accounts. The resulting data traced the longitudinal development of conflicting groups' arguments (see Fig. 1).

It is recognised that a media analysis has a high dependence on the type of information presented (Boykoff, 2011) and that media coverage both 'defines and limits the discourse' surrounding events (Miles and Morse, 2007:365). Media narratives are an important part of the local and national milieu, and have been described as 'part of the apparatus of governance' (Fairclough, 2004:134). Politicians have been found to influence media narratives but also to be influenced by them (Van Aelst and Walgrave, 2011; Schmidt et al., 2013; Atkinson et al., 2014). This allows groups, political or otherwise, to influence news and hence

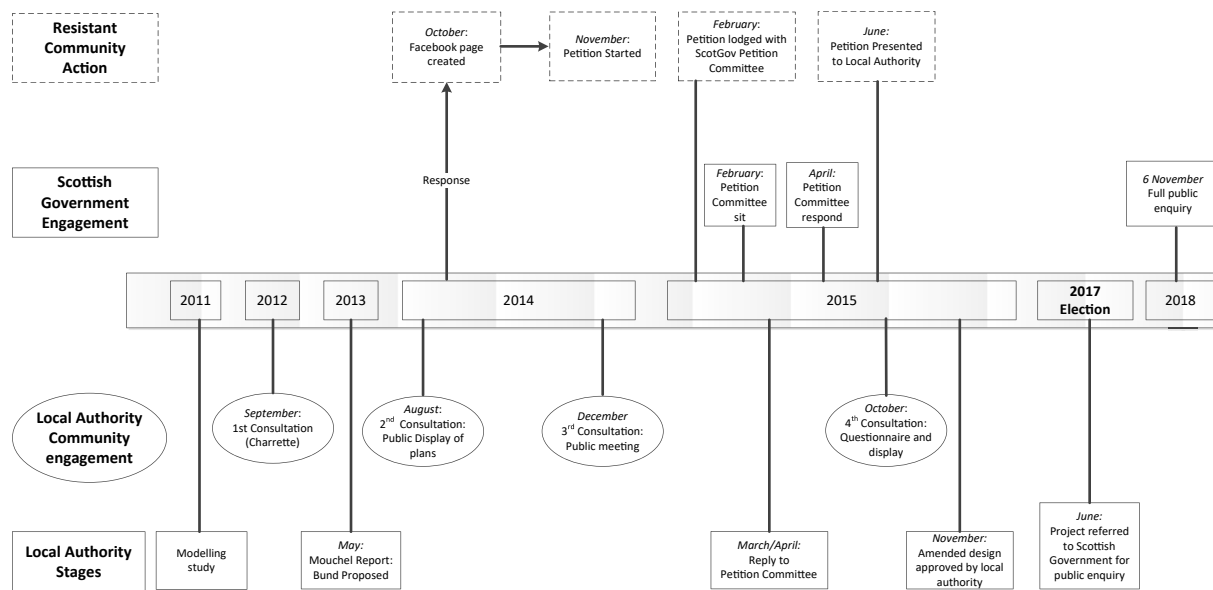


Fig. 1. The Whitesands Project Development Timeline.

information disseminated to the public in ‘advantageous ways’ (Nisbet and Feldman, 2011:295). Distortion and bias portrayed in the media narratives were important indicators of conflicting narratives, but were mediated in this study through the inclusion of a breadth of views and positions sourced from multiple actors (Carvalho, 2008).

4.5. Interviews

Semi-structured interviews were conducted with six purposively-selected small business owners located in the Whitesands. The selection criteria required interviewees’ businesses were located in the Whitesands, their premises had previously experienced multiple significant flooding events, and the Whitesands Project would directly impact the space surrounding their business. Semi-structured interviews were chosen as a method because they facilitate a nuanced exploration of the participant’s narrative whilst simultaneously eliciting contextual influences upon that narrative (Galletta, 2013). They are also particularly useful in the context of controversy and competing opinions (Rosenthal, 2003). However, it is acknowledged that such interviews are co-constructions of representations of interviewees and the researcher (Roulston, 2006) and are not neutral as social, environmental and historical perspectives influence both questions and responses (Freeman et al., 2007).

5. Results and discussion

Media articles and grey literature were systematically categorised using Nvivo to organise the data, facilitating the construction of a timeline of key events (see Fig. 1). A thematic analysis of all data sources (media, grey literature and interviews) was conducted across deductive manifest (i.e. directly observable) emergent themes, such as polarity of position; contradiction and undermining/criticisms of others; expression of institutional knowledge and expertise; evidence of disengagement; explicit statements of power. A second analysis explored inductive emergent themes including loss of income; fear of negative economic consequences; stress; and place attachment (Galletta, 2013). Triangulation of the media reports, grey literature and semi-structured interviews further increased the reliability and validity of the analysis.

5.1. Establishing polarity

Between 2012, when the first public consultation took place, and 2014 when the second consultation went on display, there was little debate or conflict within the media. However, when the second consultation occurred in 2014, community opposition emerged and polarisation became explicit in the media. ITV Border News reflected upon the severe Whitesands flood of 2009 and the current flood protection proposal, interviewing two Whitesands’ business owners. One reported that it was not the flood protection itself he opposed, but the bund idea: “The Cockermouth system for Dumfries would enable us to keep the view of the Nith. Keep everything more or less as it is. And they (*the local authority*) continuously refuse to look at it. We’ve been told it won’t work but it seems to work okay in Cockermouth” (ITV Border News, 2014).

In 2014, as the community became more aware of the bund design, evidence began of polarisation through an emerging community narrative offering alternatives to the proposed design. These alternatives did not substantively change the Whitesands nor its surrounding area. During the business owners’ interviews, four owners offered alternatives including raising the height of the current wall at the river; dredging the river; removing levies built by farmers upstream which funneled river flow; and adopting the Cockermouth solution (self-closing flood barriers rising automatically from within a 120metre-long waist-height river wall) This highlighted the formation of smaller sub-groups within the ‘resistant’ community, who each presented individualised ideas of flood prevention. Lucas and Warman (2018) similarly found disparate priorities amongst the narratives they present. This challenges the idea that resistance from a rural community is homogenous. Instead divisions appeared both within and between Whitesands community groups when alternative acceptable solutions were discussed, though a collective macro-resistance narrative to avoid substantive change remained.

Expert knowledge supplied by the local authority to undermine such community-suggested alternatives is evidenced in the business owner’s quote above when the individual states he has been told it won’t work. This undermining of local knowledge by ‘experts’ commissioned by local authorities has been documented elsewhere in polarised disputes between communities and governing agencies (Johansen and Chandler, 2015). The use of this strategy by the local authority recurred in other media reports (e.g. BBC News, 2014).

Another resistant Whitesands business community member told the

media "...I'd rather slop out my shop twice or thrice a year as lose my business altogether." (ITV Border News, 2014). His statement reflected the Whitesands business owners' resistance to losing the large riverside car park outside their businesses. The businesses deemed this essential for their businesses' survival. However, his statement supported the local authority's public narrative that the resistant community were being unreasonable. A local authority representative stated "...people will be looking on Dumfries and the fact that there does appear to be some opposition to a flood protection scheme and they'll be scratching their head. They'll be wondering why we haven't got this problem tackled once and for all. We do need to see change in Dumfries and people frankly are holding the town back by not tackling a problem that happens time and time again" (ITV Border News, 2014). This media portrayal of the resistant community evidenced the polarised position of the local authority, and further marginalized those who resisted the development by implying they were harming those not involved in the debate. Community conflict emerged between individuals within the Whitesands area itself. One resistant Whitesands business owner gave his perception of those locally who were in favour of the scheme "The most vocal differing views are people who are not actually physically flood-prone at all. They're upstairs. We hear from plenty of people who have got a lot to say who aren't affected" (Interviews: Business 1). However, as Whitesands' residents were prevented from gaining access to their homes during floods, they were also significantly impacted. Further, as the bund would not only resolve the residents' access issue but also reduce traffic and create green space outside their homes, potentially increasing the value of their properties, they had a valid interest in the plans.

A former local authority leader aligned himself with the resistant community despite failing to develop flood defences two decades earlier whilst he served on the local authority. As a former Leader he held 'insider' expertise but this was undermined by a local authority representative, who publicly described him as being "...a serial flood denier who isn't just opposed to the Council's (*local authority's*) proposals but is openly opposed to any scheme" (Daily Record, 2016). Denying this accusation, the ex-Leader responded '... we didn't take action for very good reasons, including the fact we were aware of the impact it would have on car parking and on the river views, and that there were no guarantees it would even work ... Until the Council [local authority] come up with a project that has community support then nothing further should be done' (Daily Record, 2016). The ex-Leader's response inadvertently supported the local authority's narrative that the resistant community was refusing any change, despite the threat the increasingly frequent flooding was posing to wider community safety.

5.2. Engaging with opposition

As the community became increasingly publicly polarised, a Facebook page entitled Save our Whitesands car parks and river view² was created. Through this, they mobilised a petition against the Whitesands Project which they submitted to the Scottish Government's Public Petitions Committee in November 2014. The Committee sat in February 2015 and its Chair concluded "We want to hear more from the local authority on targeted effective plans to combat flooding which can have such a devastating effect on the lives of local people ... plans for Whitesands are not yet finalised. There is still time to reach a positive solution. We are calling on local people and the local (authority) to get around a table and actively engage in working together for Whitesands" (BBC News, 2015).

The Committee received a response from the Head of Infrastructure at the local authority which stated "...those named on the petition may not have known what they were signing". The local authority went on

to propose far fewer people attended the public engagement sessions than signed the petition, and said "...some who had signed may have done so based on opinions in the local press that were not always fully representative of the facts" (Dumfries Courier, 2015). However, amongst those who had signed the petition was Alex Fergusson, Member of Scottish Parliament (MSP) for the area, who told the media "...there is deep and very widespread concern about the council's (*local authority*) position" (Dumfries Courier, 2015). At the Committee hearing in April 2015, John Wilson, MSP for Central Scotland, referred to the above response from the local authority, stating "...I suggest that, in closing the petition, we write to the council (*local authority*). I was surprised by the tone of its response in relation to the petitioners and the petition that was generated in the local community ... we should remind the council that it should endeavour to work closely with the petitioner and those who signed the petition in Dumfries to consider suitable arrangements for consultation and the way forward" (Scottish Parliament, 2015).

Evidence emerged in this longitudinal study which suggested that the local authority repeatedly failed to engage with the resistant community despite the community seeking to engage with the local authority. This supports evidence from other studies of climate driven community engagement (Pavegio et al., 2015). It was further supported during the interviews, where several business owners referenced attempts to get the local authority to engage with them. One business owner reported that he had written to the local authority without reply. Three business owners highlighted their concerns about the transparency of the consultation process during interview. Business 1 stated "They had a meeting quite recently which we weren't told about at all ... I'm not suggesting it was a secret ... those who were, let's say 'in dissent', who wanted to speak against the current system, were totally shut down". This emerging loss of trust between the business owners and the local authority at the early stages of the development process appeared to be a direct result of the lack of engagement and failure to adequately communicate with the resistant community. Business 1 added "We (*the community*) don't feel involved in that or engaged, which is disappointing".

This lack of community engagement was also reflected in media narratives. A petition of 5500 signatures against the Whitesands Project in 2015 was handed in to the local authority offices, and the lead petitioner told the media "It's been very difficult to get the council (*local authority*) to speak to us. It's taken 5500 people. It's taken my petition to Parliament. It was heard in Parliament on two occasions and on both occasions they've (*the local authority*) been asked to engage with us. It's only in the last few hours that we have had an email to say they will engage with us" (ITV Border News, 2015). This lack of willingness of local authorities to engage with rural communities has also been evidenced elsewhere in Scotland (Howgate and Kenyon, 2009), and suggests that the strategy of ignoring a polarised community was not unique to the local authority in this study.

Following a recommendation from the Scottish Government, the local authority did engage in a further consultation process, including asking the public to report their views on a questionnaire (October 2015). However, the questionnaire was designed internally by the local authority and criticised in the media for being biased towards the bund solution (Daily Record, 2015). The local authority used the resultant data to revise the bund design, reducing its height by several feet. However, they maintained the essence of the design, ensuring the car park and river views would be removed. This 'new' design was approved at the meeting of Environment, Economy and Infrastructure committee in November 2015. While the resistant community continued to object to the Project, three significant flood events occurred in the Whitesands in December 2015, causing thousands of pounds of damage to the Whitesands businesses.

Following the local elections in May 2017, a new coalition of political parties took over the running of the local authority. They decided to refer the Whitesands Project to a public enquiry. However, in so

² Community campaign Facebook: <https://www.facebook.com/Save-our-Whitesands-car-parks-and-river-view-358201247681553/>.

doing, their comments about the responsibilities of local authorities to engage with communities were revealing. They stated “there is no statutory duty upon the Council (*local authority*) to continue to try and resolve these objections. Taking into account in particular that these issues have been considered and discussed extensively during pre-application stages and modifications made to address them ... the next stages in progression of the project consideration must be given to the benefits of entering into what could become protracted discussions with potentially little chance of resolution” (Internal report to Dumfries & Galloway Council's Economy, Environment and Infrastructure Committee, 20 June 2017).

As indicated by the quote from the new local authority team, the statutory duty of local authorities to conduct public consultations is contradicted by the lack of statutory obligation to resolve conflict when such conflict arises in response to that consultation. This presents a fundamental policy paradox when addressing polarisation in community responses to environmental issues. [Cheeseman and Smith \(2001\)](#) described the process of public consultations as ‘political choreography’ with little or no real prospect of influencing the result, and the evidence in this study finds this political choreography does indeed mask the lack of responsibility to act. As a result, the Whitesands continues to flood, and still no resolution to the conflict can be found at the time of writing (November 2018).

5.3. Protectionism

The tension between the protectionism of public safety policy and the need to build resilience by allowing individuals more freedom in responding to an emergency has been discussed in previous research, and was evidenced again by this study. While the police do not forcibly evacuate the business owners, business owners who were away from their premises when the flood occurs reported they were consistently prevented from getting back in to check on their premises. As flooding often occurs during the night when the businesses are closed, this removed opportunities to protect their stock and to learn from the latest flood. This learning cycle was important to the business owners as they built their business's resilience to flooding “Every time there is a good flood people learn from it ... We seem to do something different or something extra every time” (Interviews: Business 1). The police's equiberalist ‘command-and-control’ response prevents the business owners from returning to their premises even when there is no imminent threat, and hence reduces their evolutionary resilience.

The threat of prosecution is also present in the Whitesands during flood events “They (*the police*) tried to prosecute a storeman from one of the big stores along there because he took the barrier away to let his truck in” (Interviews: Business 2). These findings are consistent with [Paveglio et al.'s \(2015\)](#) USA findings that community resilience through independence and freedom is often compromised by state agencies who prioritise safety in their protectionist approach. Similarly, [MacMahon et al.'s \(2015\)](#) Australian study found police enforcement curtailed freedom of movement. In the Whitesands, refusing to allow business owners to attend their unflooded property if they are not already in it when the alert is declared undermines the business owners' resilience. Threatening individuals with prosecution if there is no direct or imminent threat to their safety is also extreme yet not uncommon in policing floods. This presents the second policy paradox evidenced by this study, one which supports [White and O'Hare's \(2014\)](#) *resilience paradox*. As individuals in Scotland are required to manage their own response to flooding under local policies such as SOAA and CCAA, including buying and installing their own flood protection measures, they are able to learn and improve their chances of reduced damage to themselves and their properties. However, being prevented from using these measures through a heavy-handed protectionist approach under CCA policy not only undermines community members' resilience, it also generates ill-will and a polarisation within the community before any consultation on solutions takes place.

6. Conclusion

This study aimed to explore how rural community members and their local authorities polarise when decisions are made about local flood protection measures. As governments require communities to be increasingly resilient and both proactive and reactive when developing solutions to local challenges, understanding influences upon rural community resilience is increasingly important. Whilst an emphasis on individual and community responsibility is increasing, community members as individual or collective agents are relatively powerless in influencing local decisions, as evidenced by this study. We draw a number of implications for policy-makers and academics interested in aspects of polarisation in community decision-making and how this could affect the resilience of local businesses and communities.

Our findings demonstrate that local authorities should strive to ensure that infrastructural planning proposals, such as flood protection measures and regeneration plans, incorporate bilateral consultation with affected communities from the earliest stages and remain transparent throughout the process. Evidence presented here indicates that decisions of public sector institutions are often fragmented and unitary, and do not consider impact and consequences across communities, time and sectors. Consequently, there is a danger that while ‘fixing’ one problem, the damage affects the long-term development of rural communities. We found a tension between the local authority's decision-making process and its attempts at consultation, which appeared to place the institution as both separate and single-minded.

Business owners interviewed in this study developed strategies to adapt to flooding and formed new alliances for collective activities, such as collecting responses to plans and petitions to voice community concerns. In our case study area, the community became widely engaged (i.e. they opposed the implementation of a top-down decision), but insufficiently empowered to work in partnership with the local authority to reach acceptable solutions to the local challenge. Unresolved power struggles can be harmful to communities and lead to erosion of business and community resilience as polarisation can splinter previously harmonious groups. [Imperiale and Vanclay \(2016\)](#) noted that public interventions that seek to empower communities and enhance resilience among people living in vulnerable areas may help build social cohesion around a shared vision. However, for this to happen, communities need to be not only engaged but also become equal partners in (or at least be able to influence) a decision-making process. Once groups share a social identity and ruts are formed ([Lucas and Warman, 2018](#)), there is reduced opportunity to build community cohesion around an environmental conflict. Acting early to build community unity is therefore critical to facilitate a timely construction of a flood protection scheme.

Small communities bring special circumstances to decision-making contexts as close social connections support strong familiarity among local people. This social proximity can magnify pre-existing tensions between individuals and groups, and demand allegiances. This study was conducted in one such small rural community, and hence is limited by size, geographic area and the willingness of key actors to be interviewed about such a politically sensitive subject. Larger studies are therefore needed which incorporate other research methods (e.g. ethnography) to give rounded insight into the polarisation process. Robust evaluation of Scottish and UK Government policies of community resilience and empowerment are urgently required to ensure they are fit for purpose in the face of growing climate uncertainty.

In conclusion, the UK and Scottish empowerment and resilience policies will be effective only if they embrace genuine public consultation and lead to a long-term role for citizens in building their own community resilience to flooding. Currently, paradoxes in policy are facilitating polarisation amongst communities facing climate-related challenges. National policies extolling community empowerment are in danger of being merely misleading rhetoric. To ensure any community feels sufficiently empowered, a potentially challenging process of public

involvement is required. Although apparently time and resource intensive, placing greater emphasis on wide stakeholder involvement should lessen polarisation, embrace local expertise and lead to better decision-making. Solutions that are supported by the community could ultimately be both more efficient, as they avoid lengthy legislative appeals and are less resource-intensive than bitter stalemate. Policymakers should be encouraged to challenge existing policy paradoxes to ensure communities are consistently involved and heard during key decisions. Collaborative approaches can create more comprehensive local solutions which avoid any alienating top-down approaches to resolving climate-related challenges.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrurstud.2019.11.004>.

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